

In March 1989, the tanker *Exxon Valdez* ran aground and spilled more than 11 million gallons of crude oil, fouling shorelines from Prince William Sound to the Alaska Peninsula. About 8000 bald eagles inhabit that area. A 3-year study was initiated soon after to assess damages to bald eagles. Specific objectives were to determine effects of the spill on bald eagle reproduction and survival of adults and fledglings, conduct population surveys to assess population response, and examine eggs, prey, and blood for evidence of hydrocarbon exposure. Greatest damages to bald eagles occurred in 1989 and were manifested by direct mortality of an estimated 900 bald eagles throughout the spill area (about 10% of the population), and significantly reduced reproduction. Contamination of eggs and prey remains confirmed exposure to hydrocarbons. Reproductive failures were directly related to the extent and intensity of shoreline oiling near nests, but seem to have been limited only to Prince William Sound. The lack of observed reproductive failure in other areas was likely due to the timing of arrival, or decreased toxicity, of crude oil as the slick moved westward along the coast. Bald eagle reproduction in Prince William Sound rebounded in 1990. Population surveys in Prince William Sound did not show a significant decrease in numbers of bald eagles from 1989 to 1991, although confidence limits on estimates ranged from 13% to 30%. Survival was high for eagles radiotagged 4–5 months after the spill, and there were no differences in survival between birds from oiled and unoled areas. The observed responses suggest that the oil spill had only a short-term effect on bald eagle populations. A population model of bald eagles in Prince William Sound indicates that the population was increasing before the spill at a rate of about 2% per year. The cumulative effects of the direct mortality and reduced productivity in 1989 will set the population in Prince William Sound back by 3–4 years, but population growth should continue.

USDA, FOREST SERVICE GOSHAWK MANAGEMENT STRATEGY

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The current political atmosphere surrounding goshawks is described from a national perspective. The distribution and numbers of breeding goshawks on Forest Service lands throughout the western United States are discussed. Decisions and policy established at the regional and national level are described. The Forest Service challenge of meeting its Multiple-Use resource mandate and maintaining viable populations of Goshawks is discussed. Because of their extensive breeding range (east coast to west coast) and large territory size (about 10 square miles), the management strategies developed for goshawks have the potential to profoundly change Forest Service management practices throughout the country.

INTRODUCING THE INTERNATIONAL RAPTOR MIGRATION ATLAS PROJECT (IRMAP)

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We introduce the twin concepts of 1) a registry of sites of global significance to migrating raptors and 2) an international raptor migration atlas. The registry, loosely modeled after the Convention on Wetlands of International Importance, especially as Waterfowl Habitat (the so-called Ramsar Convention) and the Western Hemisphere Shorebird Reserve Network, is designed to champion the conservation of migratory birds of prey and their essential habitats. (Possible criteria for registry sites are offered for discussion purposes.) The atlas is designed to provide information needed to determine which sites should be listed as registry candidates. The project is housed at Hawk Mountain Sanctuary and is endorsed by the International Council for Bird Preservation and the World Working Group for Birds of Prey and Owls. A panel of internationally recognized authorities serves as a technical advisory board. Our paper presents preliminary, but significant, results of an initial international mailing and literature review of sites hosting large numbers of migrating raptors. IRMAP is gathering information on the geographic locations, environmental characteristics, monitoring efforts, and current threats to raptors associated with points of concentration along the world's major migratory corridors. To date, hundreds of sites encompassing six continents, many of which were heretofore unpublished, have been submitted. When completed, atlas data and registry candidates will be presented in a major publication that will provide an unprecedented global overview of raptor migration ecology and conservation. An appeal is made for information on sites that are not yet included in our database.

VARIATION IN SPOTTED OWL NEST SITE CHARACTERISTICS WITHIN THE WENATCHEE NATIONAL FOREST

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Spotted Owls (*Strix occidentalis caurina*) nest in a broad range of forest stand conditions in the Wenatchee National Forest (WNF). Nearly half of the known nests occur in even-aged patches or stands 65–135 years old, and 21% of the nest sites were partially harvested several decades prior to our study. A predictive model developed to distinguish between nest and random sites at the stand level correctly identified 70% of the study sites. Diagnostic evaluation of the model indicated that the low classification rate reflected variation in habitat conditions within the WNF. To identify factors that could improve the model, we developed pairs of predictive models based on north-